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March 3, 2023

Mr. Alan J. York  
Associate Director  
Office of Water Quality, DEQ  
5301 Northshore Drive  
North Little Rock, AR 72118-5317

RE: NPDES Permit No. AR0034126, AFIN 30-00040  
Malvern Water Works – Request for Bacteria Sampling and a Communications Plan for  
Sanitary Sewer Overflows into Town & Chatman Creeks

Dear Mr. York:

In response to your letter dated February 22, 2023, Malvern Water Works developed a Standard Operating Procedure (SOP) that provides instructions to collection system personnel for responding to Sanitary Sewer Overflows (SSOs). The SOP also includes procedures to notify residents who live downstream of the SSOs and adjacent to Town Creek/Chatman Creek of the potential water quality issues.

Regularly scheduled updates regarding the water quality of Town Creek and Chatman Creek will be made available to the public in accordance with the procedures outlined in Exhibit A. Should you have questions regarding this SOP please don't hesitate to contact me at 501.664.1552.

Sincerely,

A handwritten signature in blue ink that reads "Matthew D. Dunn".

Matthew D. Dunn, P.E.

Enclosures: Exhibit A - Standard Operating Procedure for SSOs  
Exhibit B - Location Map

Cc: David Coston, Manager, Malvern Water Works  
Carl Wheatley, Superintendent, Malvern Water Works  
Stacie Wassell, Deputy Associate Director, DEQ  
Richard Healey, OWQ Enforcement Branch Manager, DEQ

# EXHIBIT A


## STANDARD OPERATION PROCEDURE

**SOP Title:** Standard Operating Procedures for Sanitary Sewer Overflows at Manholes 0069, 0086, 0154, & 0155

OBJECTIVE	To provide clear and complete instructions for responding to sanitary sewer overflows (SSOs) at Manholes 0069, 0086, 0154, & 0155.
BACKGROUND	The above-mentioned manholes have a history of overflows during periods of wet weather due to the hydraulic design combined with unidentified inflow & infiltration (I&I) in the Malvern Sewer System. Any SSO during dry weather would likely be due to a blockage or equipment failure at the Walco Road Pump Station.
SAFETY PROCEDURES	Personnel responding to any SSO must wear appropriate personal protective equipment (PPE) to prevent contact with raw sewage. PPE may include: rubber gloves, rubber boots, impermeable coveralls and protective headwear with splash shield.
POTENTIAL HAZARDS	Manholes 0069 and 0086 are located near an unnamed tributary to Town Creek. Manholes 0154 and 0155 are located near Town Creek. Town Creek flows into Chatman Creek, which discharges into the Ouachita River. SSO contamination impacts the water quality of an area used for recreational activities.
RESPONSE	<p>Upon notification from remote sensing equipment, notification by the remote float auto-dialer, SCADA, other staff, or public notification, personnel responding to an SSO may encounter an emergency situation that requires immediate action. The first responders to the site during normal business hours will be Wastewater Collection crews. After hours, On-Call personnel will respond and call for back up personnel as needed.</p> <p>Responding personnel will:</p> <ol style="list-style-type: none"> <li>1. Determine whether the spill has reached Town Creek</li> <li>2. Notify testing laboratory to acquire testing samples should the spill reach Town Creek*</li> <li>3. Post ADH signs at locations shown in Exhibit A for Sample Sites 1 &amp; 2, should the spill reach Town Creek</li> <li>4. Provide a Health Advisory in accordance with Public Notification requirement in this SOP.</li> <li>5. Determine the cause of the problem (blockage, equipment failure at Walco Rd Pump Station, wet weather I&amp;I)</li> <li>6. Determine what additional resources may be needed (equipment and materials).</li> <li>7. Document any necessary information needed for reporting requirements.</li> <li>8. Take photos of the impacted area.</li> <li>9. Estimate the release volume based on size of the sewer, weather conditions and the extent of the release.</li> <li>10. Report spill in accordance with Office of Water Quality, DEQ reporting requirements.</li> </ol> <p>*Should testing agency not be available for immediate sampling, Malvern Water Works laboratory personnel will acquire a sample and hold in accordance with testing protocol and provide a chain of custody to the testing laboratory for further handling.</p>

<p><b>CONTAINMENT</b></p>	<p>Containment of an overflow is the responder’s first priority. The methods used will vary on a case by case basis. The Manager, Crew Leader and maintenance responders will:</p> <ul style="list-style-type: none"> <li>• Identify and obtain the necessary equipment and materials needed to contain the overflow.</li> <li>• Take immediate steps to contain the overflow (block path toward receiving water, recover with vacuum truck).</li> <li>• Determine whether additional containment measures are needed.</li> </ul>
<p><b>CORRECTION OF OVERFLOW</b></p>	<p>The time required to correct the cause of the overflow depends on the determined cause. In the case of these Manholes, the most frequent cause is wet weather initiated I&amp;I and the current hydraulic limitations of the collection and pumping system.</p> <p>Responding crews must begin by investigating upstream manholes and the downstream lift station for evidence of blockage or equipment failure. When necessary, contractor services may be requested as an additional resource to abate the overflow.</p>
<p><b>SAMPLING AND TESTING</b></p>	<p>Upon response to the spill and validation that the spill is entering Town Creek, the following sampling and testing will be initiated for <i>E. Coli</i>.</p> <ol style="list-style-type: none"> <li>1. Sampling shall occur at the site of the SSO and at the locations shown on Exhibit A.</li> <li>2. First series of tests shall be for Sample Sites 1 &amp; 2.</li> <li>3. Results shall be made available to Malvern Water Works within three (3) calendar days of the event from the testing laboratory.</li> <li>4. Should the <i>E.Coli</i> test result exceed 2050 cfu/100ml (October 1 to April 30) or 410 cfu/100mL (May 1 to September 30) at Sample Site 1 or 2 as shown on Exhibit A, ADH signs will be posted for Sample Sites 1, 2, 3, &amp; 4.</li> <li>5. A second series of tests will be scheduled and conducted for Sample Sites 2, 3, and 4 until two consecutive results for <i>E.Coli</i> equal to or less than 2050 cfu/100ml (October 1 to April 30) or 410 cfu/100mL (May 1 to September 30) are achieved, at which time the testing will cease, concluding safe bacteriological standards recommended by EPA.</li> <li>6. ADH Signs shall be removed upon demonstration of safe bacteriological testing.</li> <li>7. Malvern Water Works shall email all test results to DEQ’s Office of Water Quality, Enforcement Branch at <a href="mailto:water-enforcement-report@adeq.state.ar.us">water-enforcement-report@adeq.state.ar.us</a> upon receipt from the testing laboratory.</li> </ol> <p>Testing shall be conducted at approved Department of Environmental Quality laboratory.</p>
<p><b>RECOVERY/CLEANUP</b></p>	<p>Cleanup will be completed for all SSOs following containment and correction of the overflow. The recovery efforts will be directed at returning the affected to a pre-release condition as quickly and efficiently as possible. Cleanup activities will vary depending on the situation. Actions selected will be performed thoroughly. The general process is as follows:</p> <ul style="list-style-type: none"> <li>• Response crew will use appropriate PPE during cleanup and recovery</li> <li>• Affected area will be cleaned as much as possible using rakes, shovels, hand picker tools and vacuum equipment.</li> <li>• Affected overflow area will be evaluated for appropriate disinfection. This may include applying lime to absorb liquid and raise the pH to reduce pathogens, applying a non-hazardous bio-enzymatic bacteria consuming product to reduce impact of pathogens on receiving waters.</li> <li>• Maintain, as far as possible, an appropriate buffer zone between limited areas and the waters of the state and the United States.</li> <li>• The immediate area around the overflow site will be inspected to ensure that no visual residue remains, including solids, papers, and rags, etc.</li> <li>• If flushing is warranted and ultimately performed, then all solids and debris must be collected and disposed of properly.</li> <li>• All wash-down water must be returned to the sewer system.</li> </ul>

<p>ADDITIONAL RESOURCES</p>	<p>If the maintenance crew is unable to contain and clean up the affected area with typical maintenance equipment, then the next step will be to bring in a Contractor or other construction support. The following steps will be taken by on-call management:</p> <ul style="list-style-type: none"> <li>• Assess and mark the boundaries of the suspected area for all utility service locations (marking materials such as white paint will be used to mark the boundaries, and “Locate” will be written to indicate the area).</li> <li>• Call (811) CALL BEFORE YOU DIG.</li> <li>• Determine the additional resources and type of construction crew required to perform the task(s).</li> <li>• Call for the additional resources using existing approved contact lists as deemed necessary.</li> <li>• Enlist appropriate contract services.</li> <li>• Manage actions taken by the additional construction crew to clean up the affected area.</li> <li>• Ensure actions are documented following the SSO reporting procedures.</li> </ul>
<p>FIELD REPORTING</p>	<p>Responding personnel will collect accurate and complete field data required to be submitted to DEQ. The following information will be documented:</p> <ul style="list-style-type: none"> <li>• Date and time of notification (SCADA, Public Notification, Staff Report)</li> <li>• Date and time of dispatch</li> <li>• Date and time of arrival</li> <li>• Date and time of departure</li> <li>• Date and time of release ended (estimated as close as possible)</li> <li>• Location</li> <li>• Downstream Walco Rd Pump Station status</li> <li>• Probable Cause</li> <li>• Estimated release</li> <li>• Visual impact observed</li> <li>• Actions to repair/mitigate</li> </ul>
<p>REGULATORY REPORTING</p>	<p>Carl Wheatley, Wastewater Collection Manager or his designate will report the SSO to the Arkansas Energy and Environment Department, Office of Water Quality within 24 hours.</p> <p>The Online Sanitary Sewer Overflow (SSO) Reporting Form can be found at</p> <p style="text-align: center;"><a href="https://www.adeg.state.ar.us/water/enforcement/ss0/submit.aspx">https://www.adeg.state.ar.us/water/enforcement/ss0/submit.aspx</a></p> <p>This initial 24-hour report should include the following information:</p> <ul style="list-style-type: none"> <li>• Permit Number</li> <li>• Location of overflow (manhole number or street address)</li> <li>• The receiving water (if applicable)</li> <li>• Cause of overflow (if known)</li> <li>• Estimated volume of overflow</li> <li>• Total duration of the overflow</li> </ul> <p>If the “total duration of the overflow” is not known when the 24-hour SSO online report is submitted, then a follow-up report (5-day report) giving a detailed account of the overflow and the steps taken to resolve it must be submitted within 5 days of the overflow’s discovery. This report can be submitted by email at <a href="mailto:ssoadeq@adeq.state.ar.us">ssoadeq@adeq.state.ar.us</a> or by <a href="#">mail</a> (include Attn: Water Quality Enforcement).</p> <p>A sample of the spill shall be taken prior to confluence of the receiving stream for <i>E.coli</i>. Results of the testing shall be reported to the DEQ’s Office of Water Quality, Enforcement Branch within three calendar days of the event sampled. Test results will be emailed to <a href="mailto:water-enforcement-report@adeq.state.ar.us">water-enforcement-report@adeq.state.ar.us</a></p> <p>Sample locations are shown in Exhibit A.</p>

<p>PUBLIC NOTIFICATION</p>	<p>When SSO reaches Town Creek, Malvern Water Works will take measures inform those affected by the possible impact on water quality. The methods of public notification include:</p> <ol style="list-style-type: none"> <li>1. Signs will be posted at locations as shown in Exhibit A upon first response to the SSO advising against human contact with the affected water in accordance with this SOP. Signs will be removed when testing concludes bacteriological standards are achieved in accordance the sampling and testing section in this SOP.</li> </ol> <p>Sign content shall be as follows:</p> <p style="text-align: center;"><b>HEALTH ADVISORY</b>  WATER QUALITY IN THIS AREA  MAY BE UNSAFE  <b>SWIM AT YOUR OWN RISK</b>  <b>Arkansas Department of Health</b></p>  <p style="text-align: center;">4815 West Markham Street • Little Rock Arkansas 72205-3867  Environmental Health (501)661-2171  Epidemiology (501)661-2893</p> <p>A picture of the sign to be used is attached to this Exhibit A.</p> <ol style="list-style-type: none"> <li>2. A Health Advisory will be posted to the Malvern Water Works page of the City of Malvern’s publicly accessible website <a href="https://www.malvernark.gov/193/Water-Works">https://www.malvernark.gov/193/Water-Works</a>. Regularly scheduled updates will also be provided through this website.</li> </ol> <p><u>ADVISORY</u>  <i>As of [date and time] a <b>NO SWIMMING</b> Advisory has been issued for the Town Creek area West of Walco Rd and the Chatman Creek Area West of the prison due to a wastewater overflow. Malvern Water Works will monitor the water quality in the area until it is safe for human contact. <b>If you have any questions, you may contact Malvern Water Works at (501) 332-3634</b></i></p> <ol style="list-style-type: none"> <li>3. Upon satisfaction of <i>E. Coli</i> testing as outlined in Sampling and Testing section of the SOP the Recission of Advisory shall be provided.</li> </ol> <p><u>RECISSION OF ADVISORY</u>  <i>The <b>NO SWIMMING</b> Advisory issued on [date and time] for the Town Creek area West of Walco Rd and the Chatman Creek Area West of the prison area has been canceled. The Bacteriological survey indicates that the water is safe for recreational activities. <b>If you have any questions, you may contact Malvern Water Works at (501) 332-3634</b></i></p>										
<p>ASSOCIATED EQUIPMENT</p>	<p>The following equipment may be deployed for responding to any SSO:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. Flusher/Vac Truck</td> <td style="width: 50%;">6. Shovels</td> </tr> <tr> <td>2. Backhoe</td> <td>7. Rakes</td> </tr> <tr> <td>3. Dump Truck</td> <td>8. Trash Pickers/Grabbers</td> </tr> <tr> <td>4. Crew Trucks</td> <td>9. Trash Bags</td> </tr> <tr> <td>5. Confined Space Entry Equipment</td> <td></td> </tr> </table>	1. Flusher/Vac Truck	6. Shovels	2. Backhoe	7. Rakes	3. Dump Truck	8. Trash Pickers/Grabbers	4. Crew Trucks	9. Trash Bags	5. Confined Space Entry Equipment	
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<p>PPE</p>	<p>The following personal protective equipment may be required when responding to any SSO:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">• Hard Hats</td> <td style="width: 50%;">• Rubber gloves</td> </tr> <tr> <td>• Safety Glasses/Goggles</td> <td>• Rubber Boots</td> </tr> <tr> <td>• Face Shield</td> <td>• Protective Body Suit</td> </tr> <tr> <td>• Ear/Noise Protection</td> <td>• Respirators</td> </tr> </table>	• Hard Hats	• Rubber gloves	• Safety Glasses/Goggles	• Rubber Boots	• Face Shield	• Protective Body Suit	• Ear/Noise Protection	• Respirators		
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**HEALTH ADVISORY**

**WATER QUALITY IN  
THIS AREA  
MAY BE UNSAFE**

**SWIM AT YOUR  
OWN RISK**



**Arkansas Department of Health**  
4815 West Markham Street • Little Rock, Arkansas 72205-3887  
Environmental Health (501) 681-3171  
Epidemiology (501) 681-3895

